

1632

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/462,816

DATE: 05/14/2001

TIME: 14:18:46

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3 <110> APPLICANT: LI, Xiaomao  
4 SAMBHARA, Suryaprakash  
5 KLEIN, Michel H.  
7 <120> TITLE OF INVENTION: NUCLEIC ACID VACCINES ENCODING G PROTEIN OF RESPIRATORY  
8 SYNCYTIAL VIRUS  
10 <130> FILE REFERENCE: 1038-1003 MIS:jb  
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/462,816  
C--> 13 <141> CURRENT FILING DATE: 2000-04-05  
15 <150> PRIOR APPLICATION NUMBER: PCT/CA98/00697  
16 <151> PRIOR FILING DATE: 1998-07-16  
18 <150> PRIOR APPLICATION NUMBER: 08/896,442  
19 <151> PRIOR FILING DATE: 1997-07-18  
21 <160> NUMBER OF SEQ ID NOS: 8  
23 <170> SOFTWARE: PatentIn Ver. 2.1  
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26 <211> LENGTH: 920  
27 <212> TYPE: DNA  
28 <213> ORGANISM: respiratory syncytial virus  
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33 agcacaaaac acattatcca ttctggcaat gataatctca acttcactta taattacagc 180  
34 catcatattc atagcctcgg caaaccacaa agtcacacta acaactgcaa tcatacaaga 240  
35 tgcaacaagc cagatcaaga acacaacccc aacatacctc actcaggatc ctcagcttgg 300  
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37 aacaccagga gtcaagtcaa acctgcaacc cacaacagtc aagactaaaa acacaacaac 420  
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41 caccaccaag cctacaaaaa aaccaacctt caagacaacc aaaaaagatc tcaaacctca 660  
42 aaccactaaa ccaaaggaag taccaccac caagcccaca gaagagccaa ccatcaacac 720  
43 caccaaaaca aacatcacaa ctacactgct caccaacaac accacaggaa atccaaaact 780  
44 cacaagtcaa atggaaacct tccactcaac ctctctccga ggcaatctaa gcccttctca 840  
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46 gtagttatta aaaaaaaaaa 920  
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51 <212> TYPE: PRT  
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59 20 25 30  
61 Leu Asn Leu Lys Ser Val Ala Gln Ile Thr Leu Ser Ile Leu Ala Met  
62 35 40 45  
64 Ile Ile Ser Thr Ser Leu Ile Ile Thr Ala Ile Ile Phe Ile Ala Ser

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70 Ser Gln Ile Lys Asn Thr Thr Pro Thr Tyr Leu Thr Gln Asp Pro Gln
71      85      90      95
73 Leu Gly Ile Ser Phe Ser Asn Leu Ser Glu Ile Thr Ser Gln Thr Thr
74      100      105      110
76 Thr Ile Leu Ala Ser Thr Thr Pro Gly Val Lys Ser Asn Leu Gln Pro
77      115      120      125
79 Thr Thr Val Lys Thr Lys Asn Thr Thr Thr Thr Gln Thr Gln Pro Ser
80      130      135      140
82 Lys Pro Thr Thr Lys Gln Arg Gln Asn Lys Pro Pro Asn Lys Pro Asn
83 145      150      155      160
85 Asn Asp Phe His Phe Glu Val Phe Asn Phe Val Pro Cys Ser Ile Cys
86      165      170      175
88 Ser Asn Asn Pro Thr Cys Trp Ala Ile Cys Lys Arg Ile Pro Asn Lys
89      180      185      190
91 Lys Pro Gly Lys Lys Thr Thr Thr Lys Pro Thr Lys Lys Pro Thr Phe
92      195      200      205
94 Lys Thr Thr Lys Lys Asp Leu Lys Pro Gln Thr Thr Lys Pro Lys Glu
95      210      215      220
97 Val Pro Thr Thr Lys Pro Thr Glu Glu Pro Thr Ile Asn Thr Thr Lys
98 225      230      235      240
100 Thr Asn Ile Thr Thr Thr Leu Leu Thr Asn Asn Thr Thr Gly Asn Pro
101      245      250      255
103 Lys Leu Thr Ser Gln Met Glu Thr Phe His Ser Thr Ser Ser Glu Gly
104      260      265      270
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121 attacatcac aaaccaccac catactagct tcaacaacac caggagtcaa gtcaaacctg 180
122 caaccacaaa cagtcaagac taaaaacaca acaacaaccc aaacacaacc cagcaagccc 240
123 actacaaaac aacgccaataa caaaccacca aacaaccca ataatgattt tcacttcgaa 300
124 gtgtttaact ttgtaccctg cagcatatgc agcaacaatc caacctgctg ggctatctgc 360
125 aaaagaatac caaacaaaaa accaggaaag aaaaccacca ccaagcctac aaaaaaacca 420
126 accttcaaga caaccaaaaa agatctcaaa cctcaaacca ctaaaacaaa ggaagtaccc 480
127 accaccaagc ccacagaaga gccaacatc aacaccacca aaacaaacat cacaactaca 540
128 ctgctcacca acaaccacc aggaaatcca aaactcacia gtcaaattgga aaccttcac 600
129 tcaacctcct ccgaaggcaa tctaagccct tctcaagtct ccacaacatc cgagcaccca 660
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135 &lt;212&gt; TYPE: PRT

136 &lt;213&gt; ORGANISM: respiratory syncytial virus

138 &lt;400&gt; SEQUENCE: 4

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143           20           25           30
145 Ile Ser Phe Ser Asn Leu Ser Glu Ile Thr Ser Gln Thr Thr Thr Ile
146           35           40           45
148 Leu Ala Ser Thr Thr Pro Gly Val Lys Ser Asn Leu Gln Pro Thr Thr
149           50           55           60
151 Val Lys Thr Lys Asn Thr Thr Thr Thr Gln Thr Gln Pro Ser Lys Pro
152   65           70           75           80
154 Thr Thr Lys Gln Arg Gln Asn Lys Pro Pro Asn Lys Pro Asn Asn Asp
155           85           90           95
157 Phe His Phe Glu Val Phe Asn Phe Val Pro Cys Ser Ile Cys Ser Asn
158           100          105          110
160 Asn Pro Thr Cys Trp Ala Ile Cys Lys Arg Ile Pro Asn Lys Lys Pro
161           115          120          125
163 Gly Lys Lys Thr Thr Thr Lys Pro Thr Lys Lys Pro Thr Phe Lys Thr
164           130          135          140
166 Thr Lys Lys Asp Leu Lys Pro Gln Thr Thr Lys Pro Lys Glu Val Pro
167 145           150          155          160
169 Thr Thr Lys Pro Thr Glu Glu Pro Thr Ile Asn Thr Thr Lys Thr Asn
170           165          170          175
172 Ile Thr Thr Thr Leu Leu Thr Asn Asn Thr Thr Gly Asn Pro Lys Leu
173           180          185          190
175 Thr Ser Gln Met Glu Thr Phe His Ser Thr Ser Ser Glu Gly Asn Leu
176           195          200          205
178 Ser Pro Ser Gln Val Ser Thr Thr Ser Glu His Pro Ser Gln Pro Ser
179   210          215          220
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182 225          230

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185 &lt;210&gt; SEQ ID NO: 5

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188 &lt;213&gt; ORGANISM: respiratory syncytial virus

190 &lt;400&gt; SEQUENCE: 5

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193 ttggcgggtg tcggggctgg cttaactatg cggcatcaga gcagattgta ctgagagtgc 180
194 accatatgcg gtgtgaaata ccgcacagat gcgtaaggag aaaataccgc atcagattgg 240
195 ctattggcca ttgcatacgt tgtatccata tcataatatg tacatttata ttggctcatg 300
196 tccaacatta ccgccatggt gacattgatt attgactagt tattaatagt aatcaattac 360
197 ggggtcatta gttcatagcc catatatgga gttccgcgtt acataactta cggtaaatgg 420
198 cccgcctggc tgaccgcca acgacccccg ccatttgacg tcaataatga cgtatgttcc 480
199 catagtaacg ccaataggga ctttccattg acgtcaatgg gtggagtatt tacggtaaac 540
200 tgcccacttg gcagtacatc aagtgtatca tatgccaaagt acgcccccta ttgacgtcaa 600

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201 tgacggtaaa tggccgcct ggcattatgc ccagtacatg accttatggg actttcctac 660
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203 catcaatggg cgtggatagc ggtttgactc acggggattt ccaagtctcc accccattga 780
204 cgtcaatggg agtttgtttt ggcacaaaaa tcaacgggac tttccaaaat gtcgtaacaa 840
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VERIFICATION SUMMARY

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